

first mat to accommodate settling of the earthen formation without bulging of the face.

### REMARKS

#### Discussion of the Prior Office Actions

In the Office Action of March 27, 2001 in the original application, original Claims 1 to 8 were rejected as being indefinite in that there was insufficient antecedent basis in Claim 1 for the limitation “the reinforcing mat thereabove” and “the next successive reinforcing mat thereabove;” and also because the recitation of the limitation “each mat” in Claim 6 was unclear.

In the same Office Action original Claims 1 to 6, 9 to 15 and 17 to 20 were rejected under 35 USC § 102(b) as being anticipated by Hilfiker, et al. U.S. patent 4,505,621. In making this rejection, the Examiner commented:

Regarding claims 1 and 9, Hilfiker ‘621 discloses a wire retaining wall apparatus comprising a plurality of welded wire soil reinforcing mats seen as trays (T) in Fig. 1-3 having a generally horizontal floor (10) comprised of a gridwork of wires and a face section (12) comprised of generally vertically extending wires, wherein the wires of the face of each mat are held against horizontal displacement by the reinforcing mate thereabove and are free to move vertically relative thereto. A welded wire backing mat is disclosed as first coarse grid mat (24) , seen in Figs. 1-3 disposed behind the vertically extending wires of the face of each reinforcing mat. Each backing mat (24) has an element seen as the uppermost cross wire (24). Each backing mat (24) is spaced from the floor of the reinforcing mat therefore, as depicted in Fig. 2.

Regarding claims 2 and 10, Hilfiker ‘621 discloses in column 3, lines 20-23 that the longitudinally extending wires of the floor section of the second tray

are supported on the cross wire (16b) of the lower most tray.

Regarding claims 3-5 and 11-13, Hilfiker '621 discloses a connector, seen as hog rings (32), which extend around an upper most cross wire (34) of mat (24) and the upper most cross wire (16b) of the face section of the second tray (Col 3, lines 33-36).

Regarding claims 6, 14, and 15, Hilfiker '621 illustrates distal ends of generally vertically extending wires of the face of the reinforcing mats extending through the next successive reinforcing mat thereabove, seen as the uppermost tray extensions (18) in Figs. 1-3, wherein the extensions of each tray would cooperate with the tray thereabove (Col 2, lines 57-61).

Regarding claim 17, Hilfiker '621 discloses the limitations of the claimed invention as discussed in reference to claim 1 above, and further discloses a face on a reinforcing mat comprising generally vertically extending wires having free distal ends for extension through a soil reinforcing mat disposed thereabove, seen as uppermost tray extension (18) in Figs. 1-3. Hilfiker '621 notes the extensions of each tray would cooperate with the tray thereabove (Col 2, lines 57-61).

Regarding claim 18, Hilfiker '621 discloses a connector, seen as hog rings (32), which extend around an upper most cross wire (34) of mat (24) and the upper most cross wire (16b) of the face section of the second tray (Col 3, lines 33-36).

Regarding claim 19, Hilfiker '321 discloses the limitations of the claimed invention as discussed in reference to claims 17 and 18 above.

Regarding claim 20, Hilfiker '621 illustrates distal ends of generally vertically extending wires of the face of the reinforcing mats extending through the next successive reinforcing mat thereabove, seen as the uppermost tray extensions (18) in Figs. 1-3,

wherein the extensions of each tray would cooperate with the tray thereabove (Col 2, lines 57-61). A backing mat disposed behind the vertically extending wires as illustrates as first coarse grid mat (24) behind longitudinal wires (14) of tray (T) in Figs. 1-3.

In the same Office Action, original Claims 7 and 21 were rejected under 35 USC § 103(a), as being unpatentable over Hilfiker, et al. U.S. patent 4,505,621.

In making this rejection, the Examiner commented:

Hilfiker '621 discloses the limitations of the claimed invention except for the backing mats having vertically extending wires (claim 7) or upwardly extending distal extensions (claim 21) which extend through the next successive reinforcing mat thereabove. Hilfiker '621 discloses a backing mat (24) with vertically extending member as seen in Figs. 1-3, although they appear to terminate just above the uppermost cross wire (34) and at the floor section (10) of the next successive reinforcing mat thereabove. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the length of the vertically extending members of the backing mat of Hilfiker '621 to extend through the next successive reinforcing mat thereabove, since modifying the length of a distal end of a wire is a modification within ordinary skill in the art.

In the same Office Action, the Examiner indicated that original Claim 8 would be allowable if rewritten to overcome the rejections under 35 USC § 112 and that Claim 16 would be allowable if rewritten in independent form, including all the limitations of the base claim and any intervening claims.

A response to the Office Action of March 27, 2001 was made on June 28, 2001. That response amended Claims 1, 2, 6 and 15 to address their rejection under 35 USC § 112 and added new application Claims 22 to 24 (Claims 17 to 19 of the '970 patent). No amendments were made for purposes of distinguishing the claims under rejection from the prior art. The remarks in support of the

amendments to the claims explained that the amendments in no way alter the scope of the claims and are not for purposes of distinguishing the claims from the prior art. The response explained that Hilfiker, et al. U.S. patent 4,505,621 did not teach applicants' apparatus and method for providing a wire wall which may settle, without bulging of the face, or a structure which accommodates such settlement. It was explained that in the Hilfiker, et al. patent, the floor section 10 of each successive tray T rests directly upon the cross-wire 16b of the tray therebelow and that, as a result, there was no way for an upper reinforcing tray T to settle relative to the tray therebelow, without bending the face of the lower tray.

The Examiner responded to the amendment of June 28, 2001 by a Final Action of July 30, 2001, wherein she indicated that:

1. application Claims 1-16 were allowed;
2. application Claim 17 to 20 were rejected under 35 USC § 102(b) as being anticipated by Hilfiker, et al. U.S. patent 4,505,621;
3. application Claim 21 was rejected under 35 USC § 103(a) as being unpatentable over Hilfiker, et al. U.S. patent 4,505,621; and,
4. application Claims 22 to 24 (Claims 17 to 19 of U.S. patent 6,357,970) were objected to because of the redundancy "of the of the," but indicated as being allowable as to subject matter.

Application Claims 17 to 21 defined applicants' invention in terms of a welded wire soil reinforcing mat and a backing mat to accommodate settling of an earthen formation, without defining a plurality of soil reinforcing mats, or a second reinforcing mat. The Examiner rejected the claims over U.S. patent 4,505,621 on the basis that the functional language defining that an element was disposed for movement "to accommodate" settlement or for "restraint against vertical movement" was simply a recitation with respect to the manner in which the claimed apparatus is intended to be employed and does not differentiate the claimed apparatus from a prior apparatus satisfying the claimed structural limitations, citing *Ex Parte Masham*, 2 USPQ 2<sup>nd</sup> § 1647 (1987).

Applicants' responded to the Office Action of July 30 by an amendment which:

1. amended Claim 22 to delete the redundancy in the words "of the"; and,
2. canceled application Claims 17 to 21.

Discussion of the Proposed New Reissue Claims, With Respect to the Recapture Rule:

MPEP Section 1412.02 codifies the "Recapture Rule" which generally bars an applicant for a reissue patent from "recapturing" claimed subject matter which was surrendered in an application to obtain the original patent. The recent case of

Ex parte Eggert, 67 USPQ 2d 1716 (BPAI, 2003) applied the following rule:

In both Mentor [*Mentor Corp. v. Colorplast Inc.*, 998 F.2d 992, 27 USPQ2d 1521 (Fed. Cir. 1993)] and Ball [*Ball Corp. v. United States*, 729 F.2d 1429, 221 USPQ 289 (Fed. Cir. 1984)], the relevance of the prior art rejection to the aspects narrowed in the reissue claim was an important factor in our analysis. From the results and reasoning of those cases, the following principles flow: (1) if the reissue claim is as broad as or broader than the canceled or amended claim (the surrendered subject matter) in all aspects, the recapture rule bars the claim; (2) if it is narrower (than the surrendered subject matter) in all aspects, the recapture rule does not apply, but other rejections are possible; (3) if the reissue claim is broader (than the surrendered subject matter) in some respects, but narrower (than the surrendered subject matter) in others, then: (a) if the reissue claim is as broad as or broader in an aspect germane to a prior art rejection, but narrower in another aspect completely unrelated to the rejection, the recapture rule bars the claim; (b) if the reissue claim is narrower in an aspect germane to (a) prior art rejection, and broader in an aspect unrelated to the rejection, the recapture rule does not bar the claim, but other rejections are possible.

In the present case, the surrendered subject matter consisted of original application Claims 17 to 21, nothing more. These claims read as follows:

17. A retaining wall structure for earthen formations, comprising:

- a) a welded wire soil reinforcing mat having a generally horizontal floor comprised of a gridwork of wires and a face comprised of generally vertically extending wires having free distal ends for extension through a soil reinforcing mat disposed thereabove; and,
- b) a welded wire backing mat disposed behind the vertically extending wires, said backing mat having an element for supporting engagement with a soil reinforcing mat disposed thereabove and being disposed for movement relative to the vertically extending wires in a generally vertical plane to accommodate settling of an earthen formation within which the mats are embedded.

18. A retaining wall structure according to Claim 17 further comprising means connecting the backing mat to the vertically extending wires for restraint against vertical movement during erection of a retaining wall and release for such movement in response to settling of an earthen formation within which the mats are embedded.

19. A retaining wall structure for earthen formations, comprising:

- a) a welded wire soil reinforcing mat having a generally horizontal floor comprised of a gridwork of wires and a face comprised of generally vertically extending wires having free distal ends;
- b) a welded wire backing mat disposed behind the vertically extending wires for movement relative to the wires in a generally vertical plane to accommodate settling of an

earthen formation within which the mats are embedded;  
and

- c) means connecting the backing mat to the vertically extending wires for restraint against vertical movement during erection of a retaining wall and release for such movement in response to settling of an earthen formation within which the mats are embedded.

20. A retaining wall structure according to Claim 19 wherein the free distal ends are proportioned for extension through the floor of a like soil reinforcing mat disposed thereabove and engagement with a backing mat disposed behind the vertically extending wires of said like reinforcing mat.

21. A retaining wall structure according to Claim 19 wherein:
- a) the free distal ends are proportioned for extension through the floor of a like soil reinforcing mat disposed thereabove;  
and,
  - b) the backing mat is provided with upwardly extending distal extensions for extension through the floor of a like soil reinforcing mat disposed thereabove and engagement with a backing mat disposed behind the vertically extending wires of said like reinforcing mat.

The canceled claims recite but a single soil reinforcing mat and the structure associated with that mat which accommodates settlement of an earthen formation. As explained above, the Examiner rejected these claims over Hilfiker, et al. U.S. patent 4,505,621 on the basis that the functional language of the claims defining that the structure was “to accommodate” settlement did no more than recite the

manor in which the claimed apparatus was intended to be employed, and thus did not differentiate the claimed apparatus from the apparatus of the '621 patent.

All of the remaining claims of the application, and resulting patent, recite either “a plurality of welded wire soil reinforcing mats,” or “first and second soil reinforcing mat” and were ultimately allowed in the form originally filed, with the addition of only minor amendments to correct indefiniteness. By so allowing the claims, the Examiner tacitly acknowledged that the recitation of either a plurality of spaced soil reinforcing mats, or first and second soil reinforcing mats, with the claimed structure for supporting one mat relative to the other to permit vertical movement to accommodate settling of an earthen formation without bulging of the face of the wall, patentability distinguished from the structure of prior Hilfiker, et al. U.S. patent 4,505,621.

Discussion of the Amended and New Reissue Claims:

Claim 17 has been amended simply to change the word “horizontally” to “horizontal.” This is necessary in order to make the claim accurate, and does not alter the scope of the claim. The soil reinforcing mats are in generally horizontal spaced relationship, as already recited in patent Claims 1 and 9. They are not in “horizontally spaced relationship.”

New Claim 20 is similar to, but broader than original patent Claim 17, in that it does not call for the “support means” to be “movable relative to the face.” It also correctly recites that the mats are “horizontal.”

The language of original patent Claim 17 calling for the support means to be “movable relative to the face” was in the claim from the outset of its prosecution and was not added, or argued as being necessary to the allowability of the claim. The key language calling for the support means being carried by the face of the first mat and disposed for supporting engagement with the second mat to permit the second mat to move relative to the first mat to accommodate settlement, remains.



Accordingly, there is no issue of having recaptured something which was previously given up.

New Claims 21 and 22 are of a scope similar to, but broader than, original patent Claim 17 in that they do not define the first mat as "having a face." Rather, they define the face as being connected to the first mat. Claims 21 and 22 still define the same combination of elements as original patent Claim 17, namely first and second soil reinforcing mats, a face extending upwardly from one end of the first mat, and the support means carried by the face for supporting engagement with the second mat to accommodate settling of the earthen formation without bulging of the face. Accordingly, nothing has been recaptured which was argued or added to Claim 17 to obtain its allowance.

New Claim 22 differs from Claim 21 similar to the manner in which new Claim 20 differs from original patent Claim 17, in that it does not call for the "support means to be movable relative to the face." As has been explained in the comments concerning new Claim 20, the language calling for the support means to be movable relative to the face was in patent Claim 17 from the outset, and was not added, or argued to distinguish from cited art. Accordingly, there is no issue of recapture as to this language.

Respectfully submitted,

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Attorney Docket No. 032687-8

PATENT

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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Harold K. Hilfiker and William B. Hilfiker

Original Patent No.: 6,357,970

Reissue Application No. Filed Herewith

Filing Date: Filed Herewith

For: **COMPRESSIBLE WELDED WIRE  
WALL FOR RETAINING  
EARTHEN FORMATIONS**

Group Art Unit: 3673 (In Original Case)

Examiner: A. Pechhold (In Original Case)

**STATEMENT OF STATUS AND  
SUPPORT FOR ALL CHANGES TO  
THE CLAIMS UNDER 37 CFR SEC.  
1.173(c)**

Mail Stop: Reissue  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Claim 1: Old – pending – not amended.  
Claim 2: Old – pending – not amended.  
Claim 3: Old – pending – not amended.  
Claim 4: Old – pending – not amended.  
Claim 5: Old – pending – not amended.  
Claim 6: Old – pending – not amended.  
Claim 7: Old – pending – not amended.  
Claim 8: Old – pending – not amended.  
Claim 9: Old – pending – not amended.  
Claim 10: Old – pending – not amended.  
Claim 11: Old – pending – not amended.  
Claim 12: Old – pending – not amended.  
Claim 13: Old – pending – not amended.


Claim 14: Old – pending – not amended.  
Claim 15: Old – pending – not amended.  
Claim 16: Old – pending – not amended.  
Claim 17: Old – pending – currently amended.  
Support: Figs. 5 and 8; Columns 4 and 6; Claims 1 and 9.  
Claim 18: Old – pending – not amended.  
Claim 19: Old – pending – not amended.  
Claim 20: New – pending.  
Support: Same.  
Claim 21: New – pending.  
Support: Same.  
Claim 22: New – pending.  
Support: Same.

The Commissioner is hereby authorized to charge any additional fees or credit any overpayment to Deposit Account No. 50-0918.

Respectfully submitted,

THELEN REID & PRIEST LLP.

Dated: March 12, 2004

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